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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Paper No. 16

Application Number: 09/942,465

Filing Date: August 29, 2001

Appellants: Gerle et al.

Godfried R. Akorli
For Appellant

**SUPPLEMENTAL
EXAMINER'S ANSWER**

MAILED

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GROUP 1700

This is in response to the Appeal Brief, filed November 3, 2003, and the Remand to the Examiner from the Board of Patent Appeals and Interferences, mailed August 6, 2004. Within

page 3 of the Remand, the Board of Patent Appeals and Interferences has authorized the submission of this Supplemental Examiner's Answer.

(1) *Real Party in Interest*

A statement identifying the real party in interest is contained in the brief.

(2) *Related Appeals and Interferences*

A statement identifying the related appeals and interferences that will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) *Status of Claims*

The statement of the status of the claims contained in the brief is correct.

(4) *Status of Amendments After Final*

The appellants' statement of the status of amendments after final rejection contained in the brief is correct.

(5) *Summary of Invention*

The summary of invention contained in the brief is correct.

(6) *Issues*

The examiner takes the position that there are two issues to be considered. These issues are as follows:

(1) Whether claim 8 is indefinite under 35 U.S.C. 112, second paragraph.

(2) Whether claims 1-15 are obvious under 35 U.S.C. 103; the claims being

unpatentable over Reiff et al. ('370 or '737), each in view of WO 99/52961.

(7) *Grouping of Claims*

The rejection of claims 1-15 stand or fall together because appellants' brief does not include a statement that this grouping of claims does not stand or fall together and reasons in support thereof. See 37 CFR 1.192(c)(7).

(8) *ClaimsAppealed*

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) *Prior Art of Record*

U.S. 5,508,370	Reiff et al.	April 16, 1996
U.S. 5,693,737	Reiff et al.	December 2, 1997
WO 99/52961	Danner	October 21, 1999
EP 942023 (corresponding to U.S. 6,187,860)	Konig et al.	September 15, 1999
EP 537578 (corresponding to U.S. 5,693,737)	Reiff et al.	April 21, 1993
U.S. 4,834,764	Deiner et al.	May 30, 1989
EP 802210 (corresponding to U.S. 5,723,536)	Baumbach et al.	October 22, 1997

(10) *Grounds of Rejection*

The following ground(s) of rejection are applicable to the appealed claims:

Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which appellants regard as the invention.

The significance of the language, "at one and the same time", is unclear; it is unclear why "one and" is necessary. Furthermore, it is unclear how "desired" further limits "order". It is unclear how to determine the desirability of the order or if the language is to suggest that a particular "order" is undesirable or unworkable. The examiner has considered appellants' response; however, it remains unclear why the language, in question, is necessary and how the language serves to further limit the claim.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reiff et al. ('370 or '737) each in view of WO 99/52961.

The primary references disclose the production of blocked isocyanates and their use with water-proofing and oil-proofing fluorocarbon resins as textile treating compositions, wherein the blocked isocyanates are the reaction product of polyisocyanates, including aromatic isocyanates; active hydrogen compounds containing ionic or potential ionic groups, including sulfonate and/or tert-amino groups; polyoxyalkylene ethers; and blocking agents.

Though the primary references disclose several blocking agents, including imidazoles (column 10, lines 63 and 64), the reference is silent with respect to the use of pyrazole blocking agents; however, the position is taken that pyrazoles were known blocking agents for self dispersible isocyanates, to be used as textile finishes with fluorocarbon polymers, at the time of invention. Furthermore, it was known at the time of invention that the use of pyrazole blocking

agents within polyisocyanate compositions to be used as textile finishes yields finishes having improved oil- and water-repellent properties and improved fastness properties. This position is supported by the teachings of the secondary reference. See pages 2 and 3 of WO 99/52961. This disclosure, in combination with the fact that the disclosed imidazoles of the primary references and pyrazoles are isomers, is considered to render the use of pyrazoles within the primary references *prima facie* obvious. Furthermore, the secondary reference specifically discloses that a preferred polyisocyanate is MDI, which is aromatic. Given the teachings within the secondary reference regarding the benefits associated with the use of pyrazole blocked isocyanates, one of ordinary skill in the art would have reasonably expected the use of the pyrazoles within the primary references to yield textile finishes having improved repellent and fastness properties.

Firstly, appellants have argued that there is no basis in the cited references which would have led the skilled artisan to substitute pyrazoles for imidazoles as blocking agents for NCO-reactive compounds containing sulfonate and /or tert-amino groups, component (B), with a reasonable expectation of success. In response, it is initially noted that the argued blocking agents are utilized in the blocking of the isocyanate groups of the polyisocyanate, component (A), rather than the NCO-reactive compounds containing sulfonate and/or tert-amino groups, component (B). Accordingly, since it has been established that pyrazoles were known blocking agents for isocyanate groups, and since one would have reasonably expected pyrazoles to perform their isocyanate group blocking function regardless of the structure or composition of the NCO-reactive component (B), and since pyrazoles differ from imidazoles (imidazoles being disclosed by the primary references as being suitable blocking agents) only in that a carbon atom and nitrogen atom are transposed within the heterocyclic ring, the position is maintained, in view

of the aforementioned advantages associated with the use of pyrazole blocked isocyanates, that one of ordinary skill in the art would have been motivated to utilize pyrazole blocking agents in the production of the compositions of the primary references.

Secondly, it appears that appellants have argued that the examiner has solely based the obviousness rejection on the position that imidazoles and pyrazoles are isomers; appellants further argue that isomerism by itself should not raise a *prima facie* case of obviousness. In response, it would seem clear from the aforementioned statements that the examiner has not based the obviousness rejection solely on the fact that imidazoles and pyrazoles are isomers. While isomerism is a contributing factor in the examiner's holding of obviousness, appellants' argument fails to appreciate that fact that pyrazoles were known blocking agents for isocyanates used within self-dispersible textile finishes.

In summation, the position is maintained that the examiner has set forth the requisite motivation for utilizing pyrazoles as the blocking agents of the compositions of the primary references, and accordingly, has established a *prima facie* case of obviousness.

Within the Remand to the Examiner of August 6, 2004, the Board of Patent Appeals and Interferences has directed the examiner to reweigh the entire merits of the Section 103 rejection of record taking into account the appellants' reliance on references EP 942,023, EP 537,578, and U.S. 4,834,764 (the Remand erroneously specifies U.S. 4,834,767). The Board of Patent Appeals and Interferences has further directed that this Supplemental Answer should explain why these references, relied upon by the appellants, have not evinced that pyrazoles, such as those claimed in WO 99/52961, promote a "permanent hydrophilicity property" which is unsuitable for textile applications. In accordance with the Board's directives, the examiner has

reweighed the Section 103 rejection in view of appellants' arguments concerning EP 942,023, EP 537,578, and U.S. 4,834,767. It is noted that EP 942,023 and EP 537,578 are foreign documents utilizing the German language; therefore, English equivalent documents have been considered; EP 942,023 corresponds to U.S. 6,187,860 and EP 537,578 corresponds to U.S. 5,693,737. It is further noted that U.S. 5,693,737 is one of the primary references relied upon within the Section 103 rejection.

The examiner maintains the Section 103 rejection for the aforementioned reasons and further contends that appellants' reliance on EP 942,023, EP 537,578, and U.S. 4,834,764 fails to evince that pyrazoles, such as those claimed in WO 99/52961, promote a "permanent hydrophilicity property", which is unsuitable for textile applications, for the following reasons.

Firstly, EP 942,023 (corresponding to U.S. 6,187,860) sets forth a water dilutable blocked polyisocyanate containing a polyisocyanate, 60 to 85 equivalent percent of a pyrazole blocking agent, 15 to 40 equivalent percent of a monohydroxycarboxylic acid, and 0 to 15 equivalent percent of a chain extending agent (see column 1, lines 55-67 within U.S. 6,187,860). The reference further infers that the composition lacks the permanent hydrophilic properties of EP 802,210 (corresponding to U.S. 5,723,536) (see column 1, lines 35-48 within U.S. 6,187,860). A comparison of EP 942,023 and EP 802,210 indicates that pyrazoles are preferred blocking agents in both inventions (see column 1, line 59 within U.S. 6,187,860 and column 3, line 28 within U.S. 5,723,536). Furthermore, Example 3 of U.S. 5,723,536 indicates that 80 equivalent percent of the pyrazole blocking agent is utilized, and it is noted that this amount falls within the range disclosed within U.S. 6,187,860 for the quantity of pyrazole blocking agent. Further comparison indicates that the respective compositions differ not in blocking agent species or quantity of

blocking agent species, but in the non-ionic hydrophilic polyethylene oxide component used within U.S. 5,723,536. Therefore, one of ordinary skill considering EP 942,023 would conclude that "permanent hydrophilic properties" are governed by the component contributing the water dispersible groups rather than the blocking agents, and that in order to diminish or control "permanent hydrophilic properties", the selection of the component contributing the water dispersible groups must be carefully controlled.

Secondly, the teachings of EP 537,578 (corresponding to U.S. 5,693,737) have been discussed previously within the body of the rejection. Furthermore, it is not seen that the teachings of EP 537,578 evince that pyrazoles promote a "permanent hydrophilicity property", because EP 537,578 fails to specifically recite the use of pyrazoles. It is for this reason that the secondary reference, WO 99/52961, has been relied upon. As aforementioned, the secondary reference is considered to teach that the use of pyrazole blocking agents within polyisocyanate compositions to be used as textile finishes yields finishes having improved oil- and water-repellent properties and improved fastness properties. Considering the combined teachings of the primary and secondary references, it is not seen that the relied upon arguments or the examples of the instant specification are sufficient to rebut the *prima facie* case of obviousness. Furthermore, it appears that appellants' argument, cited by the Board, concerning hydrophilic properties are more relevant to the selection of the components providing the water dispersible groups rather than the selection of the blocking agent; however, it is noted that appellants' claims fail to limit or exclude these argued components providing the water dispersible groups. In fact, the instant claims encompass the same water dispersible group containing components disclosed by the primary reference; both ionic group containing components and ethylene oxide containing

components satisfy appellants' claims. In summation, it is by no means clear that appellants' argument sets forth a viable or legitimate distinction between the prior art and instant claims.

Lastly, the teachings of U.S. 4,834,764 have been fully considered with the appellants' argument in mind; however, it is not seen that the disclosure of this reference is particularly relevant to the issues at hand. The reference neither discloses pyrazole blocking agents nor blocking agents considered to be similar to pyrazoles. See column 2, line 67 through column 3, line 10. Furthermore, the reference merely discloses that the emulsions are prepared in conventional manner by using known emulsifiers. See column 3, lines 25-32. Given that pyrazoles are not disclosed and the lack of specificity with respect to the means of emulsification, it is not seen that the teachings of the reference correlate to appellants' argument.

(11) Response to Argument

Appellants' arguments have been addressed within the *Grounds of Rejection*.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,



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Primary Examiner
Art Unit 1711

R. Sergent
September 2, 2004

Conferees:



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